

ABSTRACT OF THE INVENTION

The invention includes an adaptive control system used to control a plant. The adaptive control system includes a hedge unit that receives at least one control signal and a plant state signal. The hedge unit generates a hedge signal based on the control signal, the plant state signal, and a hedge model including a first model having one or more characteristics to which the adaptive control system is not to adapt, and a second model not having the characteristic(s) to which the adaptive control system is not to adapt. The hedge signal is used in the adaptive control system to remove the effect of the characteristic from a signal supplied to an adaptation law unit of the adaptive control system so that the adaptive control system does not adapt to the characteristic in controlling the plant.